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ISO45001:2018



ISO14001:2015



ISO9001:2015



HANGCHA trucks conform to the European Safety Requirements.



X SERIES

ELECTRIC ALL-DIRECTIONAL REACH TRUCK

With capacity of 2,000 to 3,000kg

X SERIES

ELECTRIC ALL-DIRECTIONAL REACH TRUCK

STYLING

Streamlined curved surfaces give the X series electric all-directional reach truck a modern, dynamic appearance.

STABILITY

- Wide chassis for low centre of gravity.
- Four-point support structure maintains stability at high lift heights.

ALL-DIRECTIONAL REACH TRUCK 6-WAY TRAVEL

- Longitudinal (forward / reverse)
- Lateral (sideways)
- Automatic longitudinal-lateral switch
- Diagonal (crab)
- 90° right-angle turn
- 360° on-the-spot spin turn

These modes enable the X series electric all-directional reach truck to operate in narrow aisles and confined spaces while handling long loads such as tubing, timber, sheet and coil materials.



COMFORT & ERGONOMICS

- Electric Power Steering (EPS) with mode-change switch for effortless, intuitive steering.
- Human-engineered layout of tiller, switches and colour LCD cluster.
- Adjustable armrest / joystick height & reach to suit individual operators.
- Fitted with a new, integrated multi-function display that is comprehensive yet easy to read at a glance.



Proportional fingertip hydraulic controls for precise, smooth fork operation.



Two-step entry for easy on/off access. Suspended cab isolates vibration and noise.

HIGH EFFICIENCY

- High-lift, high-residual-capacity mast delivers efficient high stacking.
- High flow gear pump driven by high power motor increases lift/lower speed.
- Articulated four-point drive axle ensures excellent indoor/outdoor passability.
- Regenerative braking extends battery shift life.
- Multiple speed modes match different operating conditions.



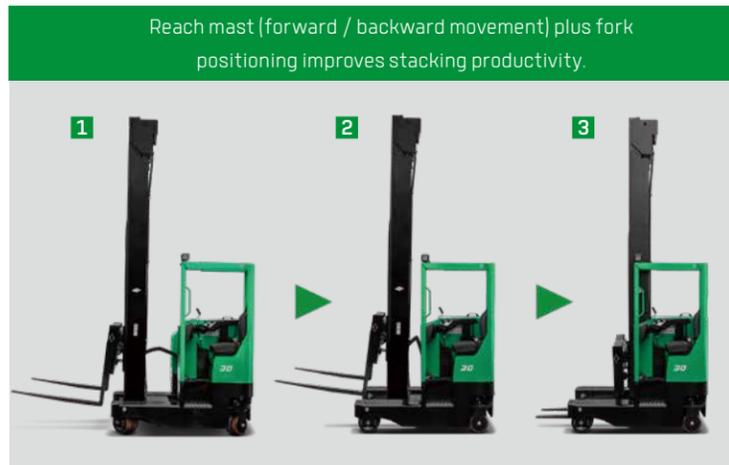
(Super)



(Power)



(Eco)



Panoramic mast design increases forward and overhead visibility.



SPACE SAVING

- Small aisle footprint increases warehouse utilisation.
- All-directional travel and tight turning radius enable operation in very narrow aisles.



RELIABILITY & SAFETY

- Premium global-brand contactors, controllers, emergency-disconnect switch and power connectors.
- High efficiency AC traction & pump systems with full motor protection.



- Safe pedal prevents inadvertent travel.



- Utilizes a four-point low-center-of-gravity design with heavy-duty frame for demanding loads.
- Combined front & rear braking for safe operation on wet indoor / outdoor floors.



ADVANCED TECHNOLOGIES

- Electromagnetic Parking Brake (EPB) replaces manual handbrake, enabling smart park-hold.
- The articulated drive-axle and suspended cab deliver superior operator comfort.
- Integrated electro-hydraulic stepless control for smooth travel & lifting.
- Intelligent electromagnetic service brake for rapid, safe stopping.
- Latest AC control system ensures precise adjustment and longer runtime per charge.

- High fork lifting and lowering speeds boost overall productivity.

Lift speed
(laden/unladen)
320/550 mm/s

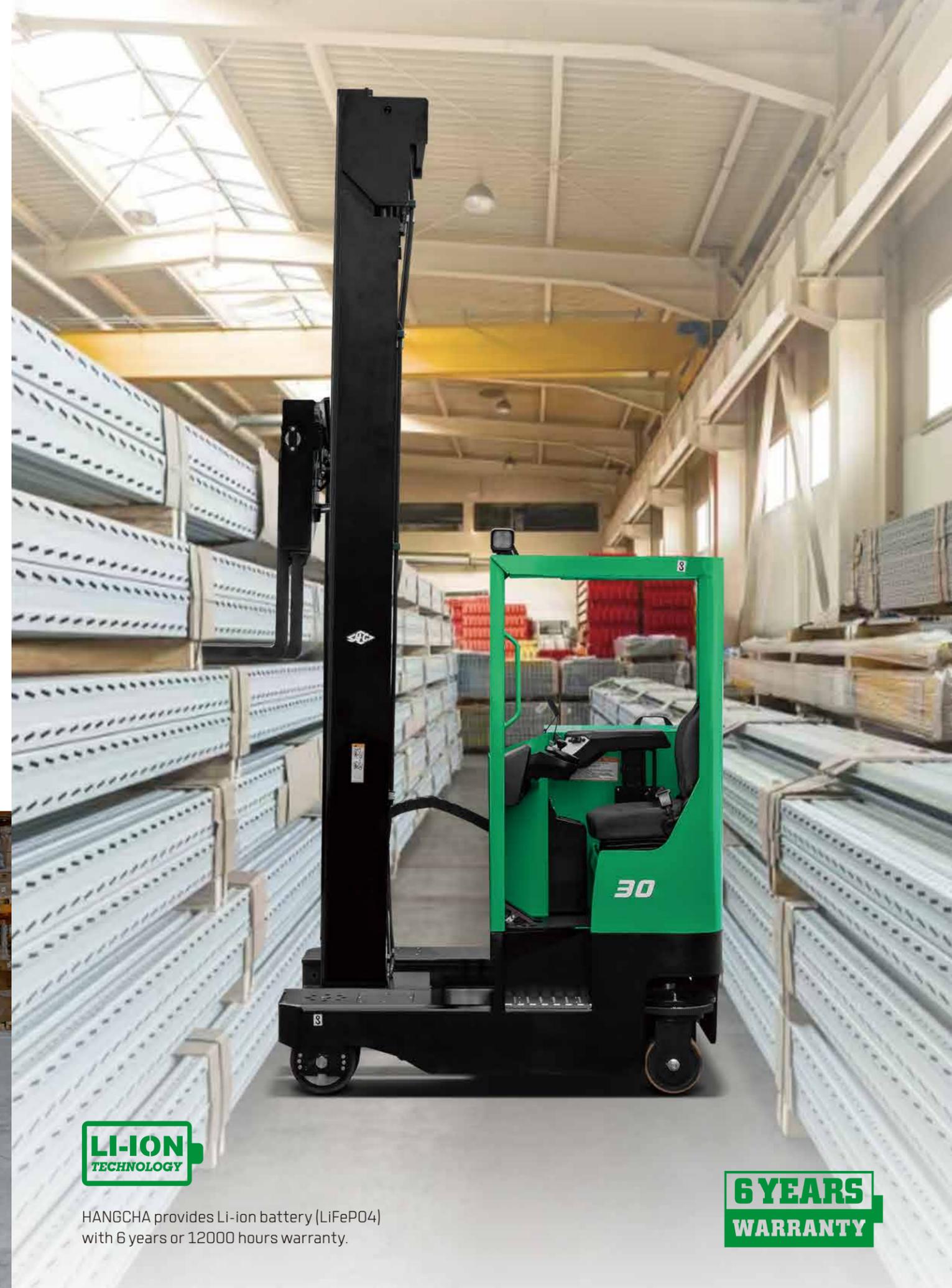
Lowering speed
(laden/unladen)
370/370 mm/s

- Large LCD display with built-in fault self-diagnosis, readable in harsh environments.



SERVICEABILITY

- Maintenance-free AC brushless traction and pump motors.
- Wide-opening canopy doors provide full component access.
- Side battery extraction (Standard) for fast change-out and maintenance.
- Highly integrated electrical package mounted on slide-out tray for easy diagnostics.



HANGCHA provides Li-ion battery (LiFePO4) with 6 years or 12000 hours warranty.

**6 YEARS
WARRANTY**

LITHIUM POWERED

EMPOWER YOURSELF WITH THE BEST



Li
Lithium

POWER THE POSSIBILITIES
RELIABLE LITHIUM-ION TECHNOLOGY



LITHIUM BATTERY ADVANTAGES



Long service life

4000 full charging cycles with at least 75% residual capacity.



Return on investment

Add flexibility to your operation, cost-saving in the long term, increased efficiencies.



Maintenance free

No topping up of water or checking acid levels.



High energy density

The high energy density of the Li-Ion battery ensures long working times and increases the high availability.



Cold area application

Li-Ion batteries maintain high performance at temperatures below freezing.



High safety and reliability

Intelligent battery management monitoring every important function, no emission of battery gasses.



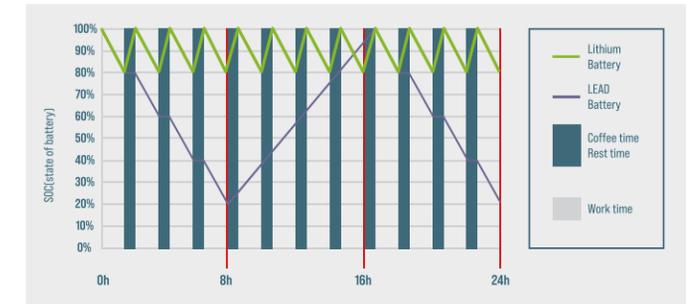
Opportunity charging

Full performance during several shifts thanks to effective interim charging.

FEATURES & BENEFITS THE HANGCHA DIFFERENCE

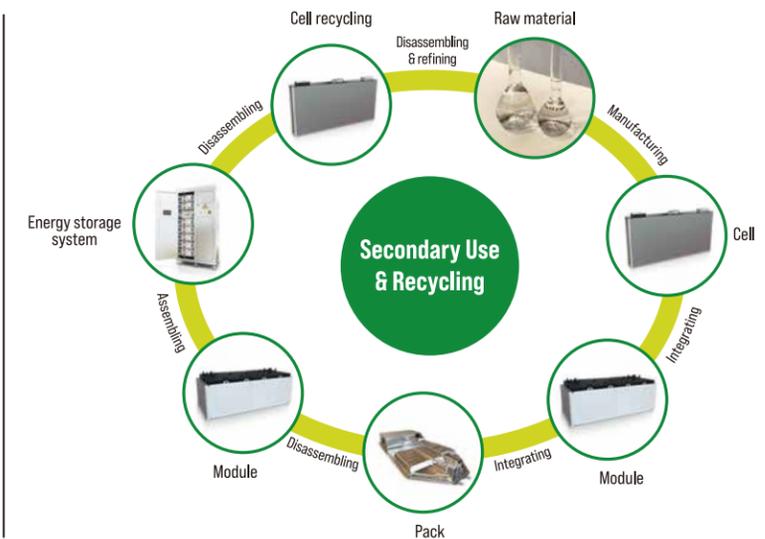
Efficiency

By quick opportunity charging any downtime, such as a lunch break, can be efficiently used and the battery is recharged in a very short period of time. Interim charging does not affect the battery service life.



Safety

- / Intelligent battery management monitoring every important function.
- / Higher user safety, thanks to acid-free use.
- / User friendly due to avoided battery change.
- / No emission of battery gasses.



QUESTION 1

Q: What are the characteristics of lithium batteries, especially when used in high and low temperature environments?

Charging temperature: -30 C -65 C
Discharge temperature: -30 C -65 C
Storage environment temperature: -30 C -65 C

After the truck key switch is closed, the instrument battery condition needs to be checked:

1. Confirm that there is no battery system alarm message on the instrument panel.
2. Please check the remaining power before use. It is recommended to use the SOC between 50% and 100%.
3. If the SOC is lower than 20%, it is not recommended to continue using it. Please charge it as soon as possible.

QUESTION 2

Q: What is the charging time and usage time calculation of forklift lithium battery?

1. Available power of lithium battery (kWh) = rated voltage * rated power * 90% (To avoid over-discharge damaging the battery, the forklift is equipped with low power protection (less than 10%)).
 2. Charging time (h) = rated capacity of lithium battery (Ah) * 90% + charger output current (A).
 3. The power consumed for charging (kWh) = the available power of the lithium battery * 93% (the charging efficiency of the charger is calculated as 93%).
 4. Usage time (h) = available power of lithium battery + energy consumption data.
- For specific energy consumption values, please refer to the technical table on the sharing platform.**

QUESTION 3

Q: How does Hangcha BMS work to ensure the safety of the lithium battery?

HANGCHA BMS (battery management system) can monitor the cells at all times. As a result, hangcha lithium power is the reliable solution.



Battery Safety Management:

- Overcharge / over discharge protection
- Overcurrent / over-temperature / low-temperature protection
- Multi-level fault diagnosis protection
- Double fault monitoring



Battery Parameter Detection:

- Battery voltage detection and analysis
- Battery current detection and analysis
- Battery temperature detection and analysis



Equilibrium Management:

- Equalization based on voltage mode
- Equalization based on time mode
- Equalization based on battery cell SOC
- Active / passive equalization optional



Other Features:

- Low cost, low power consumption
- Historical data record
- Flexible cascade expansion
- CRC data validation

Features

Mast	Standard	Options
Standard duplex mast	●	
See the Configuration Table of the Mast		○
Fork and attachment		
Standard fork	●	
Fork carriage	●	
Load backrest	●	
Fork positioner	●	
Non-standard series fork		○
Various attachments		○
Light		
LED headlight	●	
Common alarm lamp		○
Acoustic and optical alarm lamp		○
LED rear lamp		○
Blue lamp		○
Straight projection lamp		○
Horn		
Electric horn	●	
Reversing buzzer	●	
Safety configuration		
Fuse box	●	
OPS system	●	
Safety pedal	●	
Main power switch	●	
Reversing radar		○
Fire extinguisher		○
Speed limit alarm device		○
Driving space		
Standard overhead guard	●	
Steering wheel adjusting device	●	
Anti-skid boarding step	●	
Boarding handle	●	
Electric fan		○
Left and right rearview mirrors		○
Seat		
Standard safety belt seat	●	
Fully-suspended seat		○
Electronic steering		
Electronic steering	●	
Other standard configuration		
Self-locking valve in the tilting fuel circuit	●	
Speed limit valve in the lifting fuel circuit	●	
Hydraulic oil fine filter	●	
Particular market		
CE standard		○
Control mode		
Fingertip system	●	
Instrument rack space		
Smart color-screen instrument (speed mode selection)	●	
Tires		
Polyurethane wheel normally for universal wheel and bearing wheel	●	
Rubber wheel normally for driving wheel	●	

